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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,065	07/28/2003	James R. Cole	200208981-1	5842

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EXAMINER

SEVER, ANDREW T

ART UNIT	PAPER NUMBER
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2851

DATE MAILED: 08/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

1-1A

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/629,065	COLE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Andrew T. Sever	2851	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 11 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8 and 31 is/are allowed.
- 6) ☒ Claim(s) 17-30 is/are rejected.
- 7) ☒ Claim(s) 9, 11-16 and 32 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>5/2005</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 9, 11-16, and 32 are objected to because of the following informalities: claim 9 claims the limitation “the predetermined threshold”, but lack lacks antecedent basis of the use of the term “predetermined threshold”. Appropriate correction is required.

Claim 9 as amended claims an action is performed in response to some predetermined threshold, however claim 9 never sets forth what the predetermined threshold is or what it pertains too. Claims 11-16 are objected to due to their dependency on claim 9. For purposes of prior art examination, it was assumed that the predetermined threshold is the same as that properly introduced in claim 1. Claim 32 contains the same incorrect language as claim 9. Claims 9, 11-16, and 32 would be allowable if this error is corrected, see the reasons for indicating allowable subject matter below.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 17-19, 23-27, 29, and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Takizawa et al. (US 6,702,444.)

Takizawa teaches in figures 7 and 9 a light source control apparatus for a digital projector comprising:

A light source (181) for the projection of images;

A temperature sensor (410 and 420 are temperature sensors, see column 2 lines 4-14 which teaches at least one is in the vicinity of the light source) for measuring the temperature of the light source;

A cooling device (fan 16) which is capable of lowering the temperature of the light source below a temperature threshold before the light source is activated.

An on/off control (inherent) to request activation of the light source and request the light source to be turned off (this is generally what on/off controls do, and since the light source could possibly be burnt out at least at that time the on/off switch would not

Art Unit: 2851

being activating the light but merely requesting it, since the light source is incapable of lighting)

A control mechanism for processing temperature data and determining light source control and cooling device control (see figure 9 which is the control mechanism), said control mechanism with proper programming would be able to activate the light when the temperature was below a temperature threshold.

(See MPEP 2114 and *In re Schreiber*, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997))

*With regards to applicant's claim 18:*

See column 13 line 82 which teaches that the light source is extinguished If already lit if the detected temperature is above a threshold and in the case where a turn on command is given it would be lit anytime below said threshold and may or may not be lit if it were above said threshold.

*With regards to applicant's claim 19:*

If one pulls the power plug, which can be considered a turn off request, the light source would be extinguished instantly without consideration of the light-source temperature.

Art Unit: 2851

*With regards to applicant's claims 23 and 24:*

See column 2 lines 4-14 which teach the sensor is mounted in proximity to the light source, which would require it to be mounted inside the body of the projector (else it would be detecting the ambient temperature instead of a useful internal temperature.)

*With regards to applicant's claim 25:*

Part 16 is labeled "Exhaust Fans" in figure 9.

*With regards to applicant's claim 26:*

The projector would inherently include an on/off control mounted on the projector somewhere (even if it is external circuitry that processes an external on/off control signal and switches on/off the light source.)

*With regards to applicant's claim 27:*

See column 4 lines 20-23.

*With regards to applicant's claims 29 and 30:*

See above which teaches the apparatus and appropriate components, which are capable to execute the claimed function.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takizawa et al. as applied to claims 17-19, 23-27, 29, and 30 above, and further in view of Arimoto et al. (US 6,597,118.)

As described in more detail above, Takizawa teaches an apparatus for controlling a digital projector, which among other things includes a light. Takizawa does not specifically teach that the light-source is a high-pressure mercury vapor lamp. Arimoto teaches that increasingly, high-pressure mercury lamps are commonly used in projection devices (see column 1 lines 15-23). Given that they are taught to provide both long life

Art Unit: 2851

and a bright light when certain methods taught by Arimoto are followed (see column 2 lines 58-66), it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a mercury lamp in the apparatus of Takizawa as taught by Arimoto since high pressure mercury lamps has advantages over other light sources commonly used in projectors.

7. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takizawa et al. as applied to claims 17-19, 23-27, 29, and 30 above, and further in view of Goodwin (US 6,345,238.)

As described in more detail above Takizawa teaches an apparatus for controlling a digital projector that among other things includes temperature sensors for detecting the temperature around a light source. Takizawa does not teach specifically what form the temperature sensors take. Goodwin teaches in columns 2-4 and specifically at lines 55-63 of column 4 that silicon PN-junction sensors are frequently used in high temperature environments (such as that found near a high-pressure mercury arc lamp) and further that PN-junction resistive sensors of the type taught by Goodwin are good over a wide range of high temperatures while requiring little calibration. Given all of these advantages it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the silicon PN-junction resistive sensors as taught by Goodwin for the temperature sensors taught by Takizawa.



Art Unit: 2851

8. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takizawa as applied to claims 17-19, 23-27, 29, and 30 above, and further in view of Derryberry (US 6,626,543.)

As described in more detail above, Takizawa teaches an apparatus for controlling a digital projector, which includes among other things a control mechanism. Takizawa, however, does not teach that the control mechanism necessarily comprises of a computer system integrated into the digital projector, including a central processing unit, random access memory, mass storage, and access to an external network. Derryberry teaches a projector having integrated computer capabilities built into the projector so that no external computing device is required, allowing for easier transport and set up (See column 2 lines 8-26.) Derryberry teaches in column 3 lines 40-65 that the projection device includes, a central processing unit, random access memory (it is well known that the microprocessing capabilities able to run applications such as Microsoft PowerPoint, Word, and Excel would require both RAM and a CPU), mass storage (CD ROM, and DVD drives), and access to an external network (wireless technology as well as telephone connectivity.) Accordingly given that Derryberry teaches that the portable projector having all of these systems incorporated within it is much easier used and set-up then a projector without these components, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use Derryberry's portable system for the control system of Takizawa.

*Allowable Subject Matter*

9. Claims 1-8, and 31 are allowed.
10. The following is a statement of reasons for the indication of allowable subject matter:  
Claims 1, 9, 31, and 32 claim methods and/or equivalent computer programs for controlling a digital projector which among other things include turning on a cooling device and keeping the light source off if the temperature data is above the predetermined threshold when a turn-on command is received and turning on the light source if the temperature data is below the predetermined threshold when the turn-on request is received. Performing both these steps was not found in the prior art, for example Takizawa while inherently teaching turning on the light source if the temperature is below a threshold does not demand that the light source is left off if the temperature is above the threshold; Takizawa only states that at some point the light source is turned off above the threshold not that the light source is never lit above said threshold. For this reason claims 1 and 31 are indicated as being allowable, claims 9 and 32 would be allowable if re-written to correct the deficiency noted in paragraph 1 of this office action. Claims 2-8 and 11-16 are indicated allowable due to their dependency on claims 1 and 9 respectively.

***Response to Arguments***

11. Applicant's arguments filed 5/11/2005 have been fully considered but they are not persuasive.

With regards to applicant's claims 17-30, applicant argues that Takizawa does not perform the method claimed in claim 1, as stated above this is acknowledged by the office, however claims 17-30 are not directed to the method of controlling a projector, but rather are claiming the components of the projector. As stated in *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 15 USPQ 2d 1525, 152 (Fed. Cir. 1990), "Apparatus claims cover what a device *is*, not what a device *does*." and in *In re Schrieber* 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997), it was found that while features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function (See MPEP 2114). Accordingly it is irrelevant if Takizawa performs the claimed functions, only that Takizawa teaches components that are capable of performing the claimed functions; as stated above Takizawa comprises either explicitly or inherently all of the claimed components, the methods not taught by Takizawa could be performed by those components if they were programmed appropriately (no change in the actual components would be required only a change in the software that the controllers execute.) Accordingly claims 17-30 have been rejected and the rejection has been made final since the changes made in the rejection were necessitated by applicant's amendments.

Art Unit: 2851

***Conclusion***

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Sever whose telephone number is 571-272-2128. The examiner can normally be reached on 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2851

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "W/B Perkey", with a long, sweeping horizontal stroke extending to the right.

AS

**William Perkey**  
**Primary Examiner**